

**DETAILED ACTION**

***Status of Claims***

1. Claims 2-7 and 10-15 are pending.

Claims 2-6 and 10-15 are rejected.

Claims 1, 8, 9, 16 and 17 are cancelled.

***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 20, 2008 has been entered.

***Double Patenting***

3. Applicant is advised that should claim 4 be found allowable, claim 5 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. Also should claim 13 be found allowable, claim 14 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 2-6 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poetsch et al. (US 5,348,677) in view of Hiromasu et al. (US 2002/0173155 A1); Farrand et al. (EP 1 318 185 A1); Chandler (US 6,528,165 B2); and Hirakata et al. (JP 07270805).

Poetsch et al. teach compounds having a formula I, which have the same structural formula as the claimed compound structure (see entire disclosure, in particular column 3, lines 23-66; column 6, line 31 to column 8, line 62; column 9, lines 26-34 and column 17, lines 25-35). Poetsch et al. teach electro-optical liquid crystal display elements containing their formula I compounds (see column 1, line 7 to column 2, line 28). Poetsch et al. teach that their liquid-crystalline dielectrics can be used in

various electro-optical display elements (see column 1, lines 59 and 60). Poetsch et al. teach that the liquid-crystalline dielectrics according to their invention can be modified by suitable additives in such a way that they can be used in all the hitherto disclosed types of liquid crystal display elements (see column 16, lines 23-26). Such additives are taught to be known to those skilled in the art and are extensively described in the literature (see column 16, lines 27-40).

Poetsch et al. fail to expressly disclose the claimed organic active materials however their use is clearly suggested, i.e., as additives (see column 16, lines 23-40).

One having ordinary skill in the art at the time the invention was made would have found it obvious to combine the claimed organic active materials with the fluorine containing compounds of Poetsch et al. for use in liquid crystal display elements, since Poetsch et al. teach that their liquid-crystalline dielectrics can be modified by suitable additives in a such a way that they can be used in all of the disclosed types of liquid crystal display elements (see column 16, lines 23-26).

Poetsch et al. fail to expressly disclose the compounds of claim 6. However, Poetsch et al. suggest the compounds of claim 6 and the compounds expressly disclosed in example 1 of Poetsch et al. have close structural similarity and similar utility as the compounds of claim 6. Thus, the compounds of claim 6 are *prima facie* obvious over the compounds disclosed by Poetsch et al.

Again the Examiner wishes to direct the applicant's attention to MPEP 2111.02 (see above). The Examiner believes that the newly added preamble of "for an active layer of an OLED device, as disclosed in claim 6, is directed to the purpose or intended

use of the solution comprising an organic active material and a compound having the claimed structure. Thus, the Examiner believes that the preamble is not considered a limitation and is of no significance to claim construction.

With regard to the presence of the organic active materials. The use of such materials in liquid crystal display devices is known. See for example Hiromasu et al., which discloses the use of organic active materials (see entire disclosure, in particular paragraph 0002); Farrand et al., which teach the use of charge transport materials (see entire disclosure, in particular paragraph 0015); Chandler, which teaches the use of fluorescent materials (see entire disclosure, in particular column 8, lines 49-61); and Hirakata et al., which teach the use of an organic buffer layer material in a liquid crystal display (see abstract).

All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective function, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. The selection of a known material based on its suitability for its intended use supported a *prima facie* obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). The claim would have been obvious because "a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." *KSR International Co. v. Teleflex Inc.*, 550 U.S.\_\_\_\_, 82 USPQ2d 1385, 1395-97 (2007).

***Response to Amendment***

7. The rejection of claims 7 under 35 U.S.C. 103(a) as being unpatentable over Poetsch et al. (US 5,348,677) is withdrawn, since claim 7 has been amended to require the device to be a OLED or a photodetector.

***Response to Arguments***

8. Applicant's arguments filed February 21, 2008 have been fully considered but they are not persuasive.

With respect to claim 6, the Applicants argue that Poetsch does not teach or suggest solutions for forming an active layer in an organic light-emitting diode. This argument is not persuasive because the phrase "for an active layer of an electronic device, wherein the electronic device is an organic light-emitting diode" is considered to be directed to an intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In the instant case the liquid-crystalline dielectrics in combination with the conventional additives as disclosed by Poetsch et al. are capable of being used in an OLED, in particular, since Poetsch et al. teach that their liquid-crystalline dielectrics can be used in various electro-optical display elements (see column 1, line 59 to column 2, line 40).

With respect to claim 10, the Applicants argue that Poetsch does not teach or suggest solutions comprising the fluorinated compound recited in the claim and the organic active material recited, including fluorescent emitters. This argument is not persuasive because as disclosed above the use of organic active materials, including fluorescent emitters in liquid crystalline displays is known. The selection of a known material based on its suitability for its intended use supported a *prima facie* obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

For the above reasons, the Examiner believes that claims 2-6 and 10-15 are *prima facie* obvious.

***Allowable Subject Matter***

9. Claim 7 is allowed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROSALYNND KEYS whose telephone number is (571)272-0639. The examiner can normally be reached on M, R & F 5:30-7:30 am & 1-5 pm; T & W 5:30 am-4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent

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/ROSALYND KEYS/  
Primary Examiner, Art Unit 1621

June 8, 2008